

# Reason for Optimism

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## Introduction

I would like to thank the Department of Energy Federal Energy Technology Center and National Petroleum Technology Office for having me speak today: And I would like to welcome you to Dallas: Home of the Dallas Stars – 1999 Stanley Cup Champions and winners of NHA’s President’s Cup, the Texas Rangers – American League Western Division Pennant, the Cowboys – winners of 5 Super Bowls, the Byron Nelson Golf Tournament, and the Mavericks. We’re also only 300 miles from NBA Champion Spurs. Maybe this is a sign of prosperity in the oil and gas business.

In Fact, when I accepted Bill Gwilliam’s kind invitation over three months ago, I was convinced this time slot – late June 1999 – would allow me to speak about the growing, star-quality of our business – maybe even a full recovery from the struggles of the past year. Unfortunately \$18 per barrel (West Texas Intermediate), 2.25 gas (Mcf), and 570 rigs is considered an up market. Even so I believe there is real reason for optimism.

I have organized my talk into three sections. First, a review of the condition of our business – good and bad. Why we believe that being optimistic is not being a lunatic. Optimism as a core belief for the exploration and production business industry. Second, a look at the role of technology in oil and gas production. And third, a brief look at the help we have been getting from our government.

The Conference theme is “*Technology Options for Producer Survival*.” “Survival” is not a great word. It implies low self esteem – low value. I am more interested in prosperity – not just survival. I believe we are at an inflection point of increased demand for hydrocarbons and increased technology to meet that demand and that new technology will lead the way.

I have attended several conferences and heard many investor relation speeches about the energy industry in the past several months. The details and the charts seem to run together. I have devised a visual that will tell the story without getting lost in the detail.

For our industry a generic bar chart does the trick. It is all you need to describe the past 18 months. No values on the y-axis and no time line on the x-axis; all you have to do is fill in the blanks. Let me show you how generic charts work.

### **The Bad News**

The following statistics describe changes observed from January 1998 to January 1999, unless otherwise noted.

Any independent oil and gas producer can use this chart:

- Oil prices fell from \$18 per barrel to \$10 by late winter.
- Gas prices fell from \$2.25 per Mcf in January to \$1.75 by the middle of February.
- The number of operating wells is down by 136,000.
- The number of gas wells is down by 57,000.
- Research and development budgets are also down.

Any drilling contractor could use this chart:

- Active rigs in the U.S. are down from 900 to 550, or 40 percent.
- The number of U.S. rigs drilling for oil is down by 70 percent.
- The number of Gulf of Mexico jack-up active rigs is down from 132 to 85.
- The number of operating natural gas rigs is down to 450, or 25 percent.

Global Producers can identify with this chart:

- Canada drilling fell from 506 to 348, or 36 percent, and the Canadian rig count is projected to go below 100 within the next year.
- Asian oil demand has dropped by 400,000 barrels a day, or 2 percent.
- Long-term decline rates of oil production have increased by 6 to 12 percent each year (for the past several years).
- Worldwide oil and gas service spending is down from \$100 billion to \$75 billion.
- For my company, Lone Star Technologies, casing and tubing shipments have decreased dramatically.

You see, you just need one chart to describe the condition of our industry, but if you don't think that chart had enough variety, you can try a generic line chart.

- Domestic oil production has dropped to 5.5 million barrels a day, down by 3 million barrels a day in the past 10 years.
- Oil prices in constant dollars have eroded from \$17 (1990) to below \$10 (1999).
- Growth in Asian oil demand has decreased from 900,000 barrels a day (1997) to 300,000 (1998).
- Exploration and production spending has decreased by 20 percent from 1998 and 40 percent from 1997 – a decrease of \$25 billion.
- Oil well completions have decreased from 12,000 (1990) to 6,000 (1998).
- Canadian oil well completions have decreased from 8,500 (1997) to 3,000 (1998).
- Reserve life of U.S. natural gas, on and offshore, has steadily decreased throughout the past 10 years.

Given all of this bad news, why are we optimistic? Because the demand for hydrocarbons is growing. Technology will help us be competitive.

### **The Good News**

- The cost of finding a barrel of oil has dropped from \$16 per barrel in 1979 to \$5 per barrel in 1998. Technology has improved drilling success rates, reduced

drilling time, increased well productivity, and reduced the costs of products and services.

- OPEC's (particularly Saudi Arabia's) new direction.

### **Technology**

Where does Technology fit into the formula? Technology generates increased revenue, lowers cost, and improves quality.

Technology can generate increased revenue by:

- Enhancing recovery.
- Providing more accurate exploration methods.
- Using “smart wells” with 25 Atom thick chips.
- Reservoir management – maximizing the present value of recovery.
- Improving casing and tubing lines.
- Increasing operating efficiency.

Implementing the following technologies can lower costs:

- Expandable casing
- Coiled tubing
- Stronger pipe
- Deeper drilling capability – faster drilling
- Innovative reentry techniques

### **Key Point for the Future**

Much of today's lower cost has come from over capacity. The next round must come from new technology.

Increase quality:

- Improve environmental processes
- Better information
- Safer operations

## **Government Influences**

The Energy Information Administration says:

- Non-OPEC oil production is expected to grow from 50 million barrels per day to 55 million by 2020.
- Global oil demand will be 115 million barrels of oil equivalent by 2020. Up from 75 mbbls today.
- U.S. energy consumption will increase by 2.2 percent annually, but supply is expected to grow by only 1.5 percent, and near term demand will increase by 4 percent.

These statistics are good news for Lone Star – good news for you and your business.

- Hydrocarbons found and developed per operating rig has grown exponentially since 1981.
- Well depth continues to deepen. The average well in 1998 was over 5000 feet deep.

The following is from a February 1987 report from the National Petroleum Council.

Factors effecting U.S. oil and gas outlook:

- Domestic oil production down by 8 percent.
- Oil demand has increased 2.5 percent despite slow economy.
- Oil imports rose to 33 percent of supply.
- Exploration and production budgets were cut by one-third.
- Lost 150,000 jobs in the industry.

The following is from a 1990 industry report, Basic Economics, which was submitted to the Department of Energy.

U.S. is not a low cost producer of oil, the following actions can decrease U.S. oil production costs:

- Encourage greater access to Federal lands.
- Remove tax disincentives – Texas has helped put this plan into action.
- Stabilize price with oil import fees.
- Promote research and development.

- Deregulate gas pricing.

In December 1992, Ray Hunt , chair of the National Petroleum Council, reported, “Natural gas is available. Natural gas is clean. Natural gas is a domestic product.”

- Energy demand is growing – especially with respect to Natural Gas. The demand is growing faster than our supply.
- Technology will be called upon to deliver, to help the industry create new revenue – at lower costs. Our business is worthy of optimism for future prosperity.

In 1975, President Ford said, “We must develop our energy technology and resources so that the United States has the ability to supply a significant share of the energy needs of the free world...” President Ford’s vision has not yet been realized.

We have a customer base that expects low cost on time delivery of natural gas and oil.

Our government has cooperated with industry through AMT relief, severance tax abatement, occasional strategic oil reserves buys, and adherence to certain trade laws. The Department of Energy continues to work with us, the industry, to improve technology. Secretary Richardson has a core understanding of our business. Technology is the key to our future.

Thank you.

# **Lone Star Technologies, Inc.**

**1999 Oil & Gas Conference**

**Dallas**

**June 29, 1999**

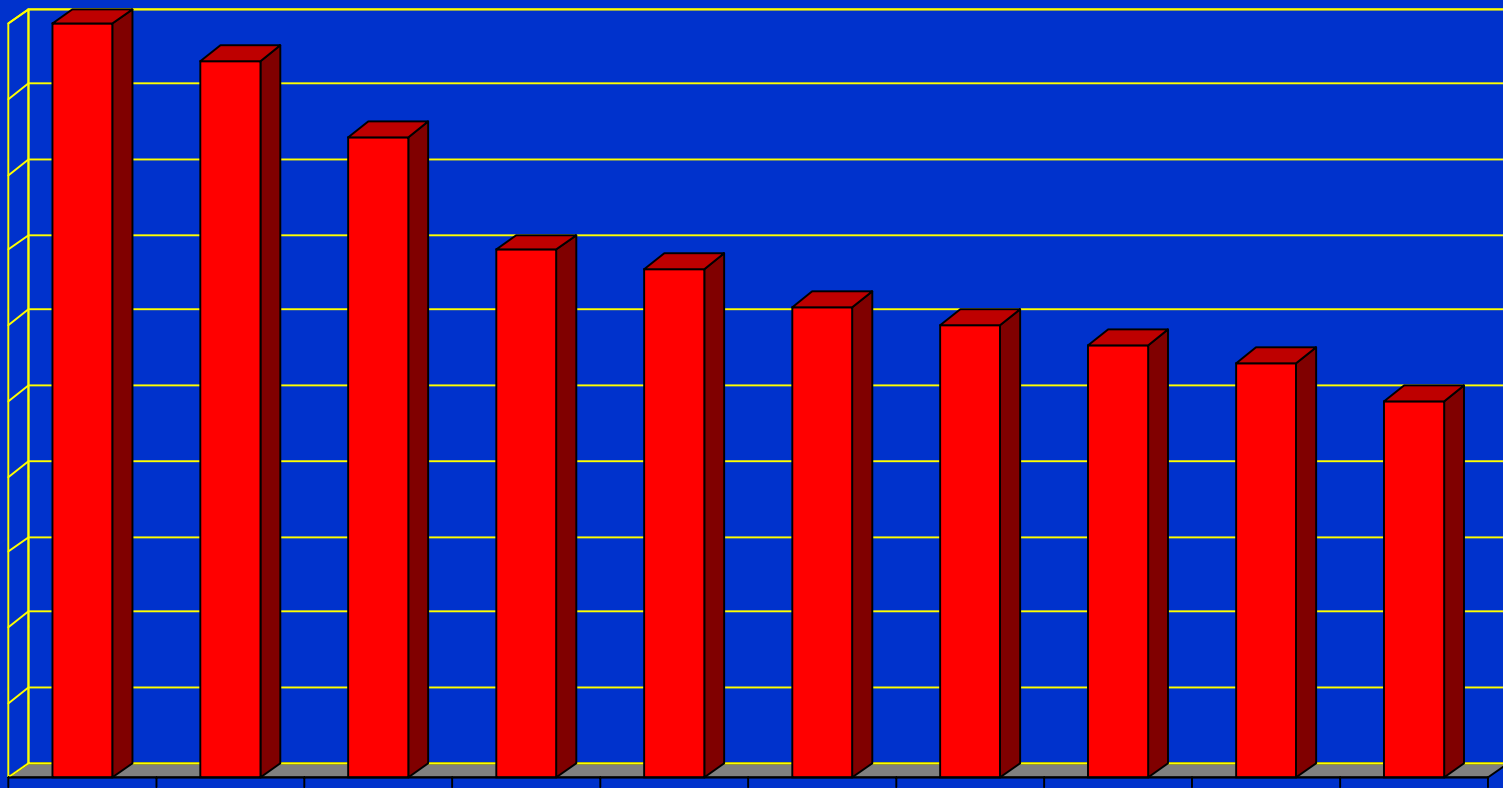
## **A Presidential declaration:**

**First, we must reduce oil imports by 1,000,000 barrels per day by years end then by 2,000,000 barrels by the end of next year...**

**Second, we must end vulnerability to economic disruption by foreign suppliers...**

**Third, we must develop our energy technology and resources so that United States has the ability to supply a significant share of the energy needs of the free world...**

# Generic Bar Chart



# Generic Line Chart

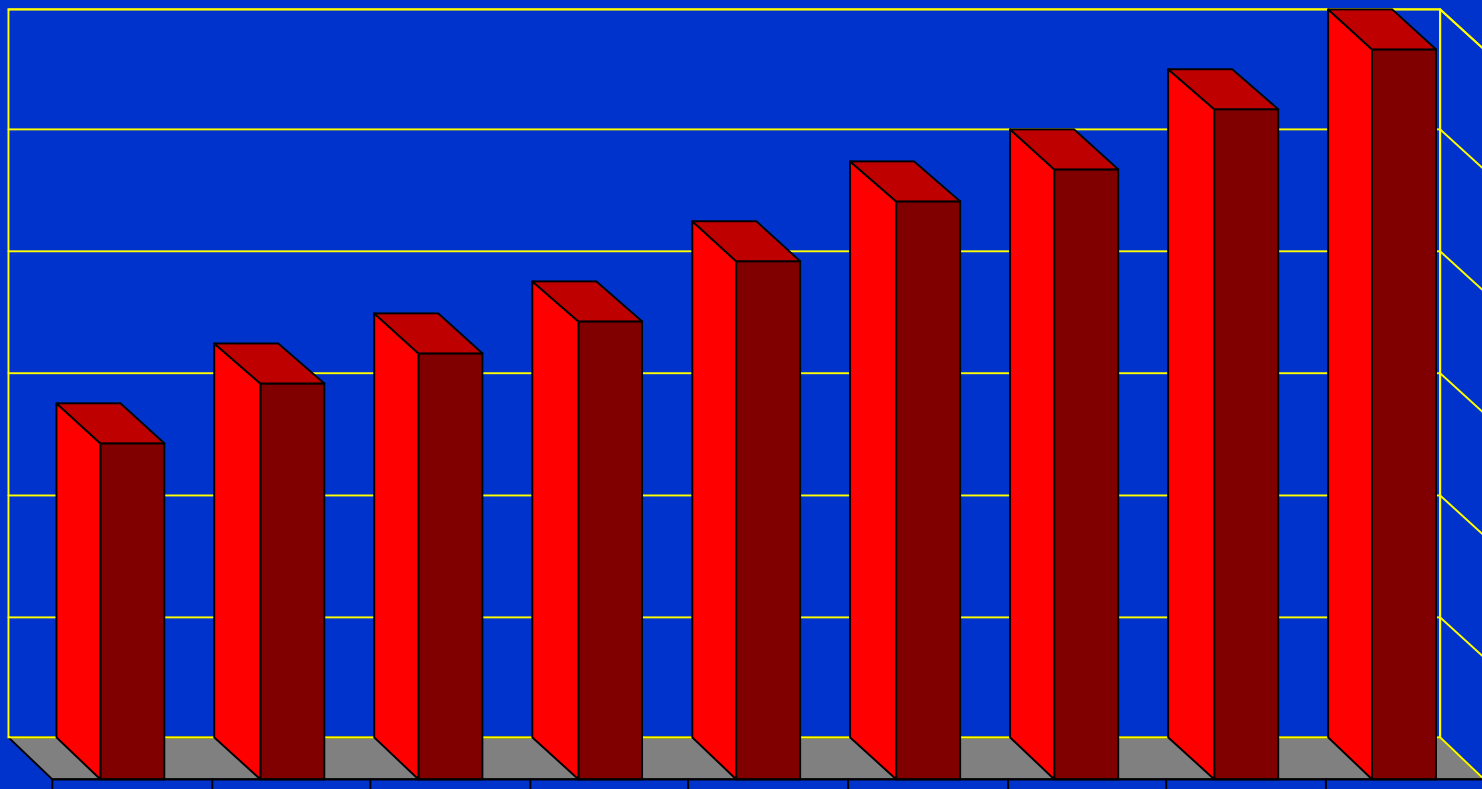


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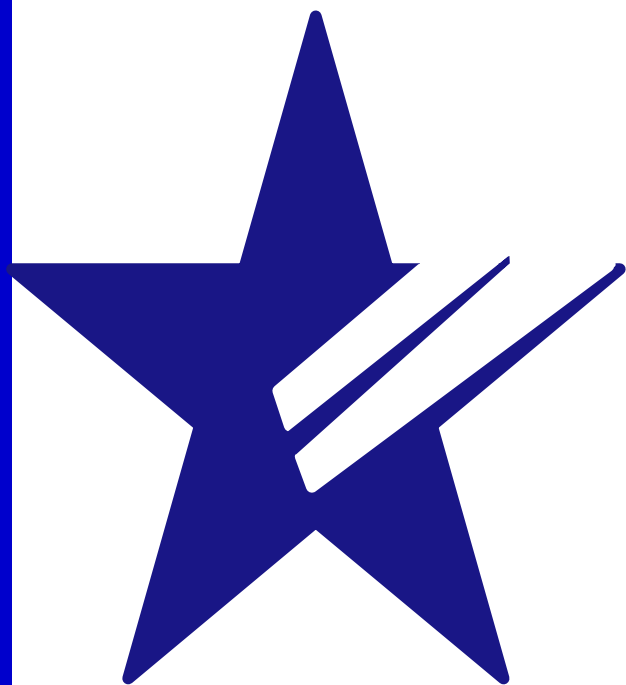
# Generic Bar Chart



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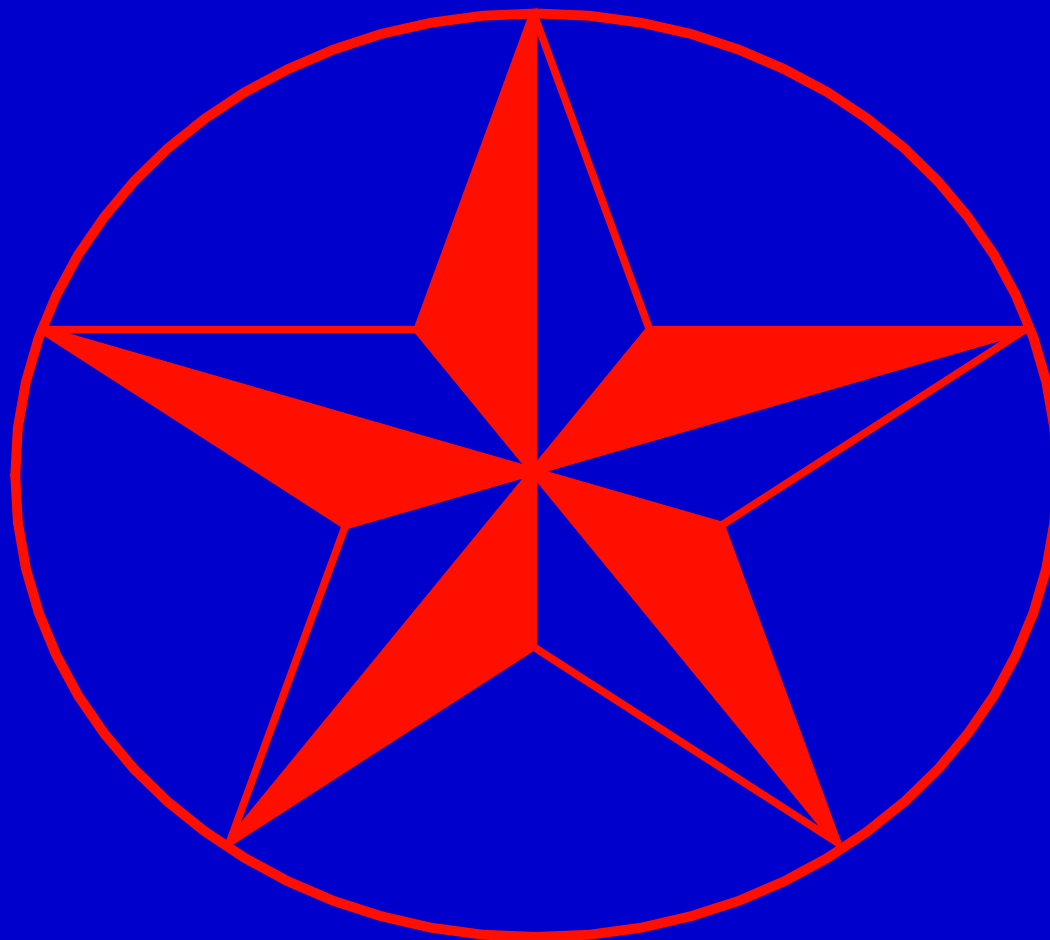
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# Cowboys Vs The Oil Patch



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